

H. S. John.

# Rhodora

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# Rhodora

JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

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## INDEX TO THE FLORA OF THE BOSTON DISTRICT.

C. H. KNOWLTON.

THE project of a Local Flora of the Boston District was first taken up by the New England Botanical Club in 1906, and a committee was appointed to collect data and commence the publication of such a flora. Lists of herbaria and previous floras were brought together and after much discussion the form of the reports was settled, and records were collated so that the first report was published in May, 1907, the committee then consisting of Messrs. A. K. Harrison, F. F. Forbes, C. H. Knowlton, and R. A. Ware. Messrs. J. A. Cushman, S. F. Blake and Walter Deane later served as members, the committee finally dropping down to two members in 1914, Messrs. Knowlton and Deane. The technique was so well established by that time that these two completed the work, the last publication coming in August, 1924. The reports are thus scattered through many volumes of RHODORA, forming a total of about 215 pages. It has seemed that an index would be of considerable value to those who have occasion to refer to this flora.

The first reports came before the publication of the seventh edition of Gray's Manual, so the committee purposely skipped from the Gymnosperms to Liliaceae and the following families, returning to the more difficult orders of the Monocotyledons after the publication of the Manual. This is the only deviation from the Manual order. At first the genera also were arranged in Manual order but beginning with the Dicotyledons it seemed easier to follow an alphabetical arrangement for genera and species.

The district covered follows the Massachusetts-New Hampshire state line west to include Groton, thence south, including Ayer, along the Worcester County line, including Southboro, to Bellingham on



the Rhode Island line; thence east, including all of Norfolk County, Easton and the Bridgewaters, to Duxbury on the coast. This is a fairly good geographic unit, but it was a long time before adequate data from the southern towns were available. From this area were reported 2030 species, 322 varieties, 45 forms, and 54 hybrids. Of these 788 species, 62 varieties and 4 forms were plants of foreign origin, thus leaving a native flora of 1242 species, 260 varieties and 41 forms.

The introduced plants were identified with great care, and notes on their origin were given when possible. Many of these were brought in wool from the ends of the earth, and were collected by those indefatigable observers, Miss Emily Fletcher and Rev. W. P. Alcott.

There have been numerous changes in nomenclature since the list was started, and of course occasional errors have come to light. Thus *Thalictrum dasycarpum* Fisch. & Lall., RHODORA XVIII, 168, proves to be based on a specimen of the *T. polygamum* group. *Aster polyphyllus* Willd. in RHODORA XXVI, 58, was based on large specimens of the *A. ericoides* complex.

Special credit should be given to Professor A. K. Harrison for his initial help in starting the project, and to Mr. Walter Deane, whose previous experience with the Metropolitan Park Flora proved invaluable and whose kindly hospitality to the committee did much to make the completion of the task possible. The staff of the Gray Herbarium, especially Professor M. L. Fernald, have coöperated at every stage of the work, and much help was received from Dr. B. L. Robinson as editor of RHODORA.

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CONTRIBUTIONS FROM THE GRAY HERBARIUM OF  
HARVARD UNIVERSITY—NO. LXXXIII.

(Continued from page 36.)

## III. FOUR GRASSES OF EASTERN AMERICA

M. L. FERNALD

*Poa labradorica*, ~~n. sp.~~ <sup>Stand. Syn. Pl. Gram. 252. 1854.</sup> perennis rhizomate repente; foliis imis marcescentibus subcoriaceis rosulatis, vaginis subinflatis chartaceis valde carinatis circa 14-costatis 1.5–4 cm. longis, ligulis brevissimis truncatis, laminis 0.5–1.5 dm. longis 3–6 mm. latis subrigidis valde plicatis vel convolutis apice subulatis; foliis caulinis 2–4 remotis, lamina suprema falcata subrigida subacerosa 4–7 cm. longa, ligulis chartaceis 2.5 mm. longis; culmo solitario stricto tereti 1.5–4 dm. alto glabro crasso ad basin 2.5–4 mm. diametro; panícula stricta 6–12 cm. longa 0.7–2 cm. diametro ramis coarctatis glabris; spiculis ellipticis purpurascensibus vel stramineis valde compressis 5.5–9 mm. longis 2–3-floris; glumis coriaceis valde carinatis glabris ovato-lanceolatis acuminatis margine apiceque albido-hyalinis, gluma inferiore 4.5–5.5 mm. longa, superiore 5–7.5 mm. longa; rhachilla deinde elongata flexuosa glabra; lemmatibus lanceolatis 4–5 mm. longis 5–7-nerviis supra glabris basin versus pilosis apice late hyalinis deinde erosio vel fimbriatis; palea lineari-lanceolata bicarinata, carinis scabris, apice bifida; antheris linearibus 2 mm. longis.—East coast of LABRADOR: Nain, August 11, 1897, *J. D. Sornborger*, no. 239, distributed as *P. eminens* (TYPE in Gray Herb.); Bowdoin Harbor, July 25–August 4, 1927, *C. S. Sewall*, no. 111; Jack Lane's Bay, July, 1927, *Sewall*, no. 201; Anatolak, June–August, 1928, *Sewall*, nos. 426, 428.

The type of *Poa labradorica*, long separated off in the herbarium as a distinct species, is now reinforced by the four collections made by Mr. Sewall in the same general region, the area centering on Nain. These form a thoroughly consistent series, clearly distinct from *P. eminens* Presl in many characters. The latter is a very glaucous plant, with much broader and flat whitish leaves (up to 1.5 cm. broad) and stouter (up to 9 mm. thick) culms, the uppermost cauline leaf with blade 1–3 dm. long; *P. labradorica* being scarcely if at all glaucous, with strongly convolute green leaves 3–6 mm. wide, with culms at most 4 mm. thick and with the blade of the uppermost leaf only 4–7 cm. long. In *P. eminens* the dense or lax panicles are 0.8–3.3 dm. long, 2–10 cm. in diameter, in *P. labradorica* 6–12 cm. long and only 0.7–2 cm. thick. In *P. eminens* the spikelets are large, 3–5-flowered, with the ovate glumes up to 11 mm. long and scabrous on the keel, the ovate lemmas scabrous to or essentially to the tip;

in *P. labradorica*, with 2-3-flowered spikelets, the more lanceolate glumes glabrous throughout and at most 7.5 mm. long, the much narrower lemmas glabrous except at the pilose base.

Although Scribner & Merrill have proposed *Poa Trinii* Scrib. & Merr., Contrib. U. S. Nat. Herb. xiii. 73 (1910) as a second species related to *P. eminens*, it is clear that *P. labradorica* cannot be referred to *P. Trinii*. In fact, I am quite unable to separate the latter from *P. eminens*. The characters used by Scribner & Merrill are not



FIG. 1, spikelet and lemma of *Poa gaspensis*  $\times 10$ ; FIG. 2, spikelet of *P. labradorica*  $\times 10$ .

constant and the specimens they cite, including the type, are readily matched in the variable series from single colonies of *P. eminens*.

*Poa macrocalyx* Trautv. & Meyer, Fl. Ochot. Phaenog. 103 (1856) has foliage and spikelets somewhat suggesting those of *P. labradorica* and Hultén, Fl. Kamtch. and Adj. Isl. i. 128 (1927) speaks of his specimens as "collected on the seashore, where they grow in the *Elymus* belt or in the subalpine meadows usually found inside that belt, often together with *P. eminens*." We have no record of the exact habitat of *P. labradorica*, but from its habit and aspect it is presumably the same as that of the related *P. eminens* and *P. macro-*



*calyx*. *P. labradorica* cannot be placed in the latter species: *P. macrocalyx* has the branches of the panicle very scabrous-hirtellous and loosely spreading, the branches in *P. labradorica* being glabrous and closely appressed; in *P. macrocalyx* the keel and lateral nerves of the lemma are densely silky-pubescent, in *P. labradorica* glabrous.

*POA gaspensis*, n. sp., plus minusve dense caespitosa, culmis numerosis teretibus glabris strictis 1.5–5 dm. altis basi vaginis foliorum emortuum scariosis brunneis vestitis; caudicibus novellis foliosis, foliis erectis anguste linearibus 1–2 (in umbra –3) dm. longis 1–4 mm. latis utrinque scabridulis vel glabris apice acutis vel subacutis callosocucullatis, ligulis truncatis 0.5 mm. longis; foliis caulinis 2 vel 3 latioribus brevioribusque, vaginis aretis lamina valde longioribus, laminis 1.5–8 cm. longis 2–5 mm. latis, ligulis 2–6 mm. longis; panicula subcylindrica vel anguste ovoidea 3–12 cm. longa 0.6–6 cm. diametro, ramis capillaribus remotis glabris vel scabrellis divergentibus vel adscendentibus, ad apicem floriferis; spiculis anguste ovatis valde compressis 3–5 mm. longis pedicellatis 3–4-floris; glumis hyalinis lucidis ovatis acuminatis 3-nerviis margine late albescentibus carina ciliatis, superiore 2.8–4.5 mm. longa; lemmatibus hyalinis albido-marginatis acutis vel subacutis 2.5–4.5 mm. longis 5-nerviis, nervo medio supra mediam longe piloso ad apicem scabro-ciliato, nervo marginali supra mediam longe piloso, nervo intermedio ad basin piloso; antheris 1.2–1.4 mm. longis.—Gaspé County, QUEBEC: wooded alluvial banks and gravelly and sandy beaches and bars of River St. Anne des Monts, July 14–16, 1906, *Fernald & Collins*, nos. 343, 344 (TYPE in Gray Herb.), 345, 347, 356, 358. No. 339 from sienitic rock-slides, Table-topped Mountain, August 9–11, 1906, probably belongs here but has extremely large spikelets.

*Poa gaspensis* has the habit of *P. alpina* L., *P. paucispicula* Scribn. & Merr. and *P. bracteosa* Kom. From *P. alpina* it is at once distinguished by its more slender caudices, narrower leaves, longer and narrowed glumes and more hyaline glumes and lemmas, the latter with the long pilosity of the nerves running much higher. *P. paucispicula* of Alaska has the second glume with a smooth keel; the lemmas nearly smooth, except for pilosity toward the base. *P. bracteosa* of Kamtchatka is described as having the glumes and lemmas glabrous (except for the cobweb at base of the latter) and Hultén states that the anthers are 2–2.5 mm. long (in *P. gaspensis* less than 1.5 mm.).

Some specimens of *Poa gaspensis* suggest *P. alpigena* (Hartm.) Lindm. f., which abounds on the Gaspé Peninsula and is highly variable, a loosely stoloniferous species; others suggest *P. alpina*, which is also abundant in the region. It is possible that *P. gaspensis* may have originated through crossing of these two dominant species,



but along the Ste. Anne des Monts it is now a common and characteristic plant. It is there associated with other endemics of the Ste. Anne valley, which are not closely related to other species in the region: *Salix chlorolepis* Fern., *S. obtusata* Fern., *Fragaria multicapita* Fern., *Solidago mensalis* Fern. and *S. chlorolepis* Fern., and with still other near-endemics (known in the Ste. Anne valley but also in other adjacent areas) such as *Salix hebecarpa* Fern., *Arenaria marcescens* Fern., *Ranunculus Allenii* Robins., *Saxifraga gaspensis* Fern. and *Vaccinium nubigenum* Fern. These are, for the most part, local representatives of species of western North America, Siberia or the Arctic; and *Poa gaspensis* seems to belong with them in having its nearest affinity with two species of the North Pacific region, *P. paucispicula* of Alaska and *P. bracteosa* of Kamtchatka.

GLYCERIA STRIATA (Lam.) Hitchc., var. **stricta** (Scribn.), n. comb. *Panicularia nervata stricta* Scribn. in Nelson, U. S. Dept. Agric. Div. Agrost. Bull. xiii. 44 (1898). *P. nervata rigida* Nash in Rydb. Mem. N. Y. Bot. Gard. i. 54 (1900). *G. nervata stricta* Scribn. acc. to Nash, l. c. as syn. (1900). *G. nervata rigida* (Nash) Lunell, Am. Midl. Nat. iv. 223 (1915). *P. rigida* (Nash) Rydb. Fl. Rocky Mts. 83, 1060 (1917). *P. nervata*, f. *stricta* (Scribn.) House, Bull. N. Y. State Mus. ccliv. 118 (1924), at least as to name-bringing synonym.

It has recently been pointed out by Professor A. S. Hitchcock, that the common plant of eastern America which we have been calling *Glyceria nervata* (Willd.) Trin. (1830) has an earlier specific name and he, therefore, publishes the combination *G. striata* (Lam.) Hitchc.<sup>1</sup> The new combination goes back to *Poa striata* Lam. Tabl. Encycl. i. 183 (1791), while *G. nervata* rests upon *Poa nervata* Willd. Sp. Pl. i. 389 (1797). Lamarck's plant came from Virginia and is, unquestionably, the common grass of the eastern United States. My purpose in this note is to direct attention to its more boreal representative which occurs across the continent northward, from Labrador to Alaska, southward into the northernmost states and along the Rocky Mountains to New Mexico and Arizona and even into Mexico. This is the grass distinguished very inadequately by Scribner as *Panicularia nervata stricta* and variously treated by other students: as a species, *P. rigida*, by Rydberg; as a mere form by House, and as not worthy any recognition at all by Hitchcock.<sup>2</sup>

<sup>1</sup> Hitchc. Proc. Biol. Soc. Wash. xli. 157 (1928).

<sup>2</sup> Hitchc. in Abrams, Ill. Fl. Pacif. States, i. 213 (1923), where the variety, which alone occurs in Washington and Oregon, is not mentioned and an illustration of the eastern plant, borrowed from Britton & Brown, is used to represent the very different western one.

The very different interpretations of var. *stricta* above indicated are clear evidence that the plant is not generally well understood. The only author who has given a good account of it is Rydberg, whose excellent diagnostic characters clearly indicate that he has studied the plants:

- Leaf-blades flat and lax; lemma slightly scarious-margined; branches of the inflorescence long; empty glumes obtuse. 1. *P. nervata*.
- Leaf-blades conduplicate, stiff, ascending; lemma distinctly scarious-margined; branches of the inflorescence short, strongly ascending, not drooping. . . . . 3. *P. rigida*.

And again: *P. NERVATA* with stems 3-10 dm. high, leaf-blades 1.5-3 dm. long, 4-10 mm. wide, scabrous above, panicle 7-20 cm. long; *P. RIGIDA* with stems 3-4 dm. high, leaf-blades 5-15 cm. long, 3-4 mm. wide, panicle about 1 dm. long, lemma rounded-oval, usually purplish.

Although separating *Panicularia rigida* as a plant of the Rocky Mts., Rydberg did not go far enough, for it is the wide-ranging northern representative of *Glyceria striata* (*G. nervata*); and in extending the range of the latter to Alaska he was including much which belongs with the former.

In the field and in the herbarium I have long recognized the two extremes as either very strong varieties or fairly distinct species and a re-study of the material confirms these earlier decisions. In view, however, of the too frequent breaking down of characters it seems to me better to express the facts, to treat them as extreme geographic varieties. Some points, not emphasized by Rydberg, should be further stressed and I should distinguish the two as follows:

*G. NERVATA*. Culms 0.3-1.5 m. high: leaves flat, up to 1 cm. broad, harsh above; the uppermost with blade 1-3 dm. long: panicle 1-3 dm. long, lax and open, the loosely ascending branches in age becoming divergent or sometimes even reflexed: spikelets greenish, rarely purplish: lemmas barely if at all scarious-tipped.—Eastern United States, extending north to southern Ontario, southern Quebec, Prince Edward Island, Cape Breton Island (Nova Scotia) and southern Newfoundland, commonly in boggy or peaty meadows, swales and thickets.

Var. *STRICTA*. Culms usually lower, 0.2-0.9 m. high, and more slender: leaves flat or conduplicate, up to 5 mm. broad, smooth or barely scabrous above; the uppermost with blade 0.3-2 dm. long: panicle 0.5-1.5 (rarely -2) dm. long, with the branches strongly ascending, only rarely divergent or reflexed in age: spikelets purple, rarely green, commonly larger: lemmas more rounded, with broad scarious tip.—Hamilton Inlet, Labrador to Alaska, south to Newfoundland, Nova Scotia, Maine, northern New Hampshire, western

not read  
 stricta  
 not 1.47



Massachusetts, central and western New York, northern Illinois, Iowa, South Dakota, New Mexico, Arizona and Oregon, and in Mexico to Hidalgo; commonly in rich or calcareous soils.

*GLYCERIA arkansana*, n. sp., ab *G. septentrionali* differt culmis crassis 1 cm. diametro; foliis flaccidis 1–1.8 cm. latis subtus laevibus supra scabridulis, ligulis hyalinis 1 cm. longis; paniculis 4–7 dm. longis, ramis laevibus adscendentibus deinde divergentibus; spiculis linearibus 10–15-floris 1.5–2 cm. longis; glumis oblongo-ovatis laevibus subcoriaceis, superiore 2.5–3.5 mm. longa; lemmatibus membranaceis oblongo-ovatis subacutis 2.5–3 mm. longis hirtellis valde 7-costatis.—Arkansas and Louisiana. ARKANSAS: common in swamp, Varner, Lincoln County, April 29, 1898, *B. F. Bush*, no. 9, as *Panicularia fluitans* (TYPE in Gray Herb.). LOUISIANA: without definite locality, *Hall*, no. 685; infrequent in wet ground, Gretna, May 10, 1899, *C. R. Ball*, no. 362, as *Panicularia fluitans*.

*Glyceria arkansana* is a coarser plant than *G. septentrionalis*, with broader and more flaccid leaves and larger panicles. Yet, its strongest characters are in the smaller and more delicate spikelets. In *G. septentrionalis* the glumes are firmer, the upper one 4.5–5.7 mm. long (in *G. arkansana* 2.5–3.5 mm.). The coriaceous lemmas of *G. septentrionalis* are 3.6–5.5 mm. long, scabrous-puberulent and only obscurely 7-nerved; the lemmas of *G. arkansana* only 2.5–3 mm. long, thin or membranaceous, definitely hirtellous and very sharply and prominently nerved. *G. fluitans* (L.) R. Br., to which *G. arkansana* is likewise related, has the glumes and lemmas as large as in *G. septentrionalis* but the lemmas thinner and less pubescent; *G. borealis* (Nash) Batchelder has as small and as delicate spikelets as *G. arkansana* but the lemmas quite glabrous; and *G. leptostachya* Buckl. and *G. acutiflora* Torr., though of the same group, are so different as scarcely to need comparison with the plant of Arkansas and Louisiana.

(To be continued)

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## NOTES FROM THE HERBARIUM OF THE UNIVERSITY OF WISCONSIN—IV.

NORMAN C. FASSETT.

*ACONITUM NOVEBORACENSE* Gray, var. *quasiciliatum*, n. var., caulibus saepe recumbentibus, 6–10 dm. longis; foliis 5–20 cm. latis, orbiculatis, fere ad basem 5–7-divisis, fere glabris minutis setulis dispersis marginis revolutae exceptis; sepalis caeruleis, supremis 1.5 cm. longis, in rostrum horizontale contractis, filamentis superne

caeruleo-striatis, infra albis, planis; antheris orbiculatis, 0.4–0.6 mm. diametro; carpellis 2–3, 8–9 mm. longis, pedicellis ascendentibus vel recurvatis.

Stems often reclining, 6–10 dm. long; leaves 5–20 cm. broad, orbicular, 5–7-cleft nearly to the base, nearly glabrous except for minute scattered hairs along the inrolled margin; sepals blue, the uppermost 1.5 cm. long, rather abruptly contracted to a horizontal beak; filaments streaked with blue above, flat and white below; anthers orbicular, 0.4–0.6 mm. in diameter; mature carpels 2–3, 8–9 mm. long, on ascending or somewhat recurved pedicels.—WISCONSIN: small precipitous shaded gorge, Mill Bluff, Lodi Mills, September 29, 1928, *N. C. Fassett*, no. 7610 (TYPE in Herb. Univ. of Wis.); September 19, 1925, *N. C. Fassett*, no. 2686; Pewit's Nest Gorge, Baraboo, August 20, 1927, *Bernard Harkness*.<sup>1</sup> IOWA: Postville, July 4–6, 1904, *Pammel, Orr & Wilson*; June 22, 1918, *L. H. Pammel*; Dubuque County, June 18, 1922, *Pammel & Trenk*.

The type collection is from Sauk County, in one of the shallow gorges that often break the perpendicular faces of the sandstone cliffs cut by the Wisconsin River. Growing for the most part ten to twenty feet above the top of the talus slope, it can be collected only with some difficulty. This material differs from New York material of *A. noveboracense* (loaned from the New York State Museum through the courtesy of Mr. H. D. House and Mr. Neil Hotchkiss) by its small anthers, these being only 0.4 mm. long, as opposed to those of the more eastern species, which are 0.6 mm. long. This difference, however, does not hold in the other material of the Wisconsin and Iowa plant. The plants of the author's collections were somewhat recumbent down the face of the cliffs, so that the mature capsules were on recurved (thus erect) pedicels, and the inflorescence tended to become secund on each branch. The Iowa plants were more erect.

Material of *A. noveboracense* from Oxford, New York, collected by Mrs. M. H. Fitch, July 20, 1889 (the type of the species came from Oxford) has a rather strict inflorescence and perfectly glabrous leaves. A sheet from "Peckamoose, Catskill Mts." collected by C. H. Peck, approaches the Wisconsin plant in its looser inflorescence, and leaves somewhat pubescent toward the margin.

The Iowa specimens here cited were kindly loaned by Drs. Pammel and Crary, and formed the bases for the reports of *A. noveboracense*<sup>2</sup> and *A. uncinatum*<sup>3</sup> from Iowa. The latter species is accredited to

<sup>1</sup> Specimen in the Herbarium of the Milwaukee Public Museum.

<sup>2</sup> Plant World viii. 43 (1905).

<sup>3</sup> Iowa Acad. Sci. Proc. cxxx. 272 (1923?).



Wisconsin in Gray's Manual and by Britton and Brown, but I have seen no specimens from this state. Dr. Rydberg writes: "We have one specimen of *Aconitum uncinatum* from Wisconsin. It was collected by Lapham at Milwaukee. I think that it should be referred to that species, but the specimen represents a plant somewhat stiffer than the eastern form and with more of the five-lobed leaves. We have no specimens of *A. uncinatum* from any place between Ohio and Wisconsin." It may be added that Lapham used labels with the printed data: I. A. LAPHAM, MILWAUKEE, WISCONSIN, and often wrote in simply the name of his plant, with no information as to locality. He used these labels for plants which did not come from Wisconsin, making confusion similar to that caused in somewhat like manner by Engelmänn.<sup>1</sup> On some of his labels Lapham has written "Milwaukee," but Milwaukee, to him, included territory anywhere within twenty-five miles of the present city. There is no *Aconitum* in the Lapham herbarium, now at the University of Wisconsin.

The *Aconitums* of the Gray's Manual region may be distinguished as follows:

- a. Rachis of the inflorescence glabrous, only the distal end of each pedicel pubescent; hooded sepal 17–20 mm. long; leaves 3–(5)-cleft.....*A. uncinatum*
- a. Rachis and pedicels pubescent; hooded sepal 14–15 mm. long; leaves 5–7-cleft....b.
- b. Pubescence spreading; leaves glabrous except sometimes on the inrolled margins; hood arched; flowers blue....c.
- c. Carpels 12–20 mm. long at maturity; leaf-margins glabrous.....*A. noveboracense*
- c. Carpels 8–9 mm. long at maturity; leaf-margins appearing ciliate, but really with scattered hairs on the inrolled part.....*A. noveboracense*, var. *quasiciliatum*
- b. Pubescence appressed-incurved; leaves with closely appressed hairs; leaf-margins with copious stiff hairs, not inrolled; hood elongate, cylindrical; flowers white or yellowish.....*A. reclinatum*

In view of its short comparatively thick fruits it was at first intended to publish *A. noveboracense*, var. *quasiciliatum* as a species. This plant, and the variety of Shooting Star next to be discussed, are both confined, so far as is known, to the unglaciated area of southwestern Wisconsin and neighboring states.

DODOCATHEON MEADIA L.—The common Shooting Star, on prairies, bluffs, and in woods, across southern Wisconsin, and north to Brown, rarely to St. Croix, County, is a stout plant, 2.5–6 dm. tall, with an

<sup>1</sup> See RHODORA XXV. 109 (1923).

ample umbel of from 6 to 18 pale lilac to white flowers. On the bluffs bordering the Mississippi River is found a plant much more slender in all its parts, from 2-3.5 dm. tall, with fewer (2-11, rarely 18) flowers of a deep claret color. In fruit the plants are very distinct. The stout pale-flowered plant has an ovoid-conical or broadly cylindric capsule, 5-7.5 mm. thick and 10-15 mm. long, with dark brown, nearly black seeds. The slender brilliant-flowered plant has a narrowly cylindric capsule, 3-4.5 mm. thick and 13-16 mm. long, with light castaneous or olive-brown seeds. A distinction observable in the fresh plants lies in the tips of the sepals and bracts, which, in the smaller variety, bear each a minute red glandular spot. These seem to fade at least partially when the plants are pressed.

These two plants have been grown side-by-side for 14 years in the garden of Dr. C. H. Bunting of this city, who transplanted the slender variety (the "Jewelled Shooting Star," he calls it) from La Crosse. Each has remained constant. Dr. Bunting has noted that while the stout plant, native to the vicinity of Madison, has reseeded and spread, the slender plant has not.

*D. MEADIA* var. **amethystinum**, n. var., *planta gracilis*; scapis 2-3.5 dm. altis, floribus 2-11(-18); petalis intense rubicundo-purpureis; capsulis maturis cylindraceis, 3-4.5 mm. diametro, 13-16 mm. longis; seminibus solute castaneis vel olivaceis.—WISCONSIN: Alma, June 25, 1928, *May Lees* (fruit); Cochrane, June, 1928, *Angeline Rohrer*, (flowers): Fountain City,<sup>1</sup> May 19, 1911, *H. C. Benke* (flowers); La Crosse, May 10, 1983, *Minnie Sheldon* (flowers); Prairie du Chien, June 2, 1928, *N. C. Fassett*, no. 7548 (fruit and flowers) (TYPE in Herb. Univ. of Wis.); Madison, June, 1928, *C. H. Bunting* (fruit from individuals transplanted from La Crosse in 1914). MINNESOTA: Queen's Bluff, Winona, May 27, 1928, *J. M. Holzinger* (fruit).

The only intermediate seen was collected at West Salem, Wisconsin, 13 miles east of La Crosse, by Mr. N. W. Rowe. This plant resembles typical *D. Meadia* in habit, but has the cylindrical capsules and red-tipped sepals and bracts of var. *amethystinum*.

Although here treated as a variety, this plant may yet prove to have specific characters. Indeed it resembles *D. Meadia* less closely than it does some of the Rocky Mountain members of the genus, and seems fully as distinct as many plants of that region now accorded specific rank. It has much the aspect of *D. pauciflorum* and *D. radiatum*, but differs in having the filaments distinct; the capsule is much like that of *D. cylindrocarpum*, but is not circumeissile as in that species.

<sup>1</sup> Specimen in the Herbarium of the Milwaukee Public Museum.



I wish to express gratitude to Miss Lees, Miss Rohrer, Dr. Bunting, Professor Holzinger, and Mr. Rowe, for their help in assembling enough material to study this plant.

*ASTER SERICEUS* Vent, f. *albiligulata*, <sup>us/</sup> n. f., ligulis albis; floribus disci flavibus; bracteis viridibus non purpureis.—WISCONSIN: crumbling limestone bluff, Roxbury, September 29, 1928, *N. C. Fassett*, no. 7546 (TYPE in Herb. Univ. of Wis.).

In typical *A. sericeus* the disk flowers as well as the rays are purplish, and the involucre bracts are more or less marked with purple.

It is a coincidence that but a few rods from this white form of a normally purple-flowered plant, there was a plant of a closely related genus, normally white-rayed, whose rays were decidedly purplish.

*ERIGERON CANADENSE* L., f. *coloratus*, n. f., ligulis violaceis.—WISCONSIN: crumbling limestone bluff, Roxbury, September 29, 1928, *N. C. Fassett*, no. 7547 (TYPE in Herb. Univ. of Wis.). MASSACHUSETTS: New Bedford, *T. A. Greene*.

MADISON, WISCONSIN.

A TERATOLOGICAL FLOWER OF *CORALLORRHIZA MACULATA*.—On July 25, 1928, in the town of Pelham, Massachusetts, I collected a specimen of *Corallorrhiza maculata* Raf. growing under normal conditions. Upon examination later I noted that one of the flowers was markedly different from the others. An examination revealed the interesting fact that this flower was double, either due to fusion or to splitting. The sepals were normal in general appearance, but were five in number. Two were superior in position, two were lateral, and the fifth was basal underneath the lips which were two in number. Both of these lips were normal in size and color and were free to the base. There were two lateral petals and also a third petal which occupied a superior position between the two upper sepals. All of these sepals and petals were free. There were two columns which appeared normal except that they were fused at the sides. The whole plant was  $13\frac{1}{2}$  inches high with a raceme of 16 flowers of which all, except the one noted, were normal.—S. JUDSON EWER, Champaign, Illinois.

## A DAY IN GASPÉ.

ARTHUR STANLEY PEASE.

ON July 17, 1928, the writer and Professor F. B. Loomis, of Amherst College, in the course of an automobile trip around the Gaspé Peninsula, set out in the morning from Gaspé, and drove across the Dartmouth River to Ste. Majorique, and thence down the east shore of Gaspé Bay some miles beyond Grande Grève. There we left the car and walked to the lighthouse at Cape Gaspé, where we had the interesting experience of standing on the very northeastern tip of the Appalachian System, at the point at which it drops into the sea in a splendid cliff, perhaps six or seven hundred feet high.

On the open turf and gravelly crests near the lighthouse I picked up *Artemisia borealis* Pall., the first Gaspé collection save on the higher Shickshocks (Mts. Albert and Pembroke); also *Draba incana* L. and *Euphrasia arctica* Lange. A somewhat toilsome scramble through scrubby firs and spruces along the crest of the limestone cliffs to the north disclosed *Primula laurentiana* Fernald and *Hedysarum alpinum* L., var. *americanum* Michx., but my earlier visions of collecting on the talus of these cliffs were rudely shattered by discovering that they drop vertically into the water with no talus at all and practically no vegetation on their sides. It was, accordingly, a temptation to turn inland to a line of dryish Devonian cliffs (of the Grande Grève formation, a series corresponding to the Lower Helderberg), parallel to the shore and about half a mile back from it. On these grow *Saxifraga aizoon* Jacq., *Draba arabisans* Michx., and *Carex concinna* R. Br., but dryness, friability, and the lack of earthy talus made the spot rather unexciting, and I rejoined my companion for lunch at Grande Grève, none too well pleased with the result of the morning's collecting.

In the afternoon, however, fortune changed. Leaving Mr. Loomis to look for fossils on the Gaspé Bay side of the peninsula, I set out, across a narrow isthmus to the northeast, toward the St. Lawrence shore at Cape Rosier. The road at first ascends slightly, passes through woods, and then descends at a terrific grade (which I had been warned not to attempt with a car), down the side of steep cliffs which face the river but gradually retreat from it. A little beyond the bottom of the hill I was attracted by the continuation of these cliffs (again of the Grande Grève formation), covered at their tops



with low-lying mists, but revealing on their lower slopes a talus of great extent. Accordingly, much of the time in heavy rain, I climbed up this talus, which is loose and rather toilsome in passage, to its top, and there, partly on the finer parts of the talus and partly on the rocks of the cliff itself, found collecting to atone for the disappointment of the morning. Yellow *Cypripediums* grew in handsome clumps in the rocks and gravel, with flowers varying greatly in size; on the ledges *Arnica chionopappa* Fernald was in excellent flower and fruit, with *Dryas Drummondii* Richardson and *Potentilla nivea* L., var. *macrophylla* Seringe in fruiting condition and *Poa Sandbergii* Vasey (already known from cliffs at Carleton, Percé, and Bic) and *P. glauca* Vahl near at hand. A puzzling form of *Senecio pauperculus* Michx., var. *Balsamitae* (Muhl.) Fernald seemed worthy of collection,<sup>1</sup> while the talus also furnished *Amelanchier sanguinea* (Pursh) DC., var. *gaspensis* Wiegand, *Viola adunca* J. E. Sm., var. *glabra* Brainerd (a plant apparently somewhat general on the outer coast of Gaspé), and a single fruiting specimen of *Androsace septentrionalis* L., already known from the north shore of the St. Lawrence and from cliffs on the south coast in the vicinity of Marten River.

Three plants, however, proved of especial interest. One was a composite, the genus of which I did not recognize, though its leaves suggested an *Artemisia*. It had evidently flowered very early, for its inflorescence was already reduced to the somewhat dried-up involucre and receptacles, with an occasional achene still adhering, none of these features at all resembling *Artemisia*. The plant proves to be *Erigeron compositus* Pursh, var. *trifidus* (Hook.) Gray, already collected in this vicinity in 1923 by Brother Victorin, and by other collectors at Rivière à Pierre, and discussed by Fernald in RHODORA, 30 (1928): 122–123. Whether the Gaspé specimens are radiate or discoid we have, as yet, no evidence to show. A second treasure was true *Arabis Holboellii* Hornem., the second collection of the typical plant outside Greenland, the first being on calcareous cliffs east of Bic; while the third, and most interesting of all, was *Draba oligosperma* Hook., of which I collected one characteristic clump, apparently its first appearance from east of the Rocky Mountains of Alberta. For the identification or verification of a number of the species mentioned I am greatly indebted to Professor Fernald. Specimens of all have been deposited in the Gray Herbarium and duplicates of several in the herbarium of Amherst College.

Rom.

<sup>1</sup> Forma *inchoatus* Fernald, RHODORA, 30: 226.

When I rejoined my companion I was amused to find that the excavation being made in a hillside for the building of a garage near our lunching place had furnished enough fossils to occupy him all the afternoon without the trouble of further search along the shore, and with our load of fossils and plants we drove back to Gaspé, well satisfied with our day's experience.

AMHERST COLLEGE

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CLADONIA FLORIDANA IN NEW JERSEY.—In a recent paper, Mr. C. A. Robbins<sup>1</sup> has shown that the *Cladonia* which has been passing as *Cladonia beaumontii* (Tuck.) Wainio should be known as *C. floridana* Wainio, Tuckerman's type of *C. santensis* f. *beaumontii* on which Wainio's name was based being referable to a different species from that described by Wainio under the name *C. beaumontii*. *Cladonia floridana* is a coastal plain species, not common in herbaria, and is rare north of the Carolinas. Mr. Robbins<sup>2</sup> has recorded it from the vicinity of Wareham, Massachusetts, and the writer has collected it at two localities in the vicinity of Washington, D. C. (Landover, near Bladensburg, Maryland, and near Lanham, Maryland). No other records of its occurrence north of North Carolina are available. A small gathering of *Cladonias* made by the writer on sandy pine barrens at Inskip, Atlantic Co., New Jersey, on 2 Sept. 1928 and identified by Mr. Robbins included young plants of *C. floridana* Wainio and young fruited plants of f. *esquamosa* Robbins. Specimens have been deposited in the United States National Herbarium.—S. F. BLAKE, Bureau of Plant Industry, Washington, D. C.

<sup>1</sup> RHODORA 29: 133-138. pl. 157. 1927.

<sup>2</sup> RHODORA 25: 46. 1923; 27: 51. 1925.

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